

This handsome species belongs to the *fallax* (*marginatus*) group of *Camponoti* and is closely related to *C. texanus* Wheeler and *C. sayi* Emery. It differs from both of these species in its uniform yellowish-red color, somewhat smoother surface, narrower and less prominently dentate clypeus in the worker major, and from *sayi* also in its larger size. It might, perhaps, be regarded as a subspecies of *texanus*. The specimens received from Mr. Biederman were found in a "nest partly in the ground and partly in rotten wood, six inches deep, at an altitude of 5,000 feet."

PROCEEDINGS OF THE NEW YORK ENTOMOLOGICAL SOCIETY.

ANNUAL MEETING OF JANUARY 5, 1909.

Held at the American Museum of Natural History. President C. W. Leng in the chair, with seventeen members present.

The following report was read by the Treasurer :

Society's Bal. January 1, 1909.....	\$916.86	
Received during 1908 for dues and interest.....	206.24	
Disbursements.....	<u>132.09</u>	
Balance.....		\$991.01
Journal account Bal. Jan. 1, 1909.....	\$142.11	
Rec'd from subscriptions and sales.....	444.60	
Disbursements.....	<u>494.96</u>	
Balance.....		91.75
Total Balance.....		<u>\$1082.76</u>

Mr. E. D. Harnis, chairman of the auditing committee, reported on examination and endorsement of the report and commended the watchfulness and economy of the treasurer.

The librarian reported the receipt of the following exchanges :

Zeitschr. f. Wiss. Insekten-biologie, IV, Nos. 10-11.

Canadian Entomol., XL, No. 12.

Wiener. Entom. Zeitung., XXVII, Nos. 9 and 10.

Descriptions of Some New Mosquitoes from Tropical America, by H. G. Dyar and F. Knab.

A Generic Revision of American Moths of the family Cecophoridae, by A. Busck.

A Revision of Some Species of Noctuidae, by J. B. Smith.

Descriptions of New Species of North American Crambid Moths, by W. D. Kearfott.

Two New Species of Neotropical Orthoptera of the family Acrididae, by J. A. G. Rehn.

Deutsche Entomol. Zeitschr., 1908, No. 6.

Jahresheft d. Vereins f. Schlesische Insektenkunde, 1908, No. 33.

Dr. E. B. Southwick, chairman of the committee, read the nominations of officers as follows:

President — G. W. Leng.

Vice President — E. B. Southwick.

Treasurer — W. T. Davis.

Rec. and Corr. Sec. — H. G. Barber.

Librarian — C. Schaeffer.

Delegate to Academy of Sciences — C. H. Roberts.

Executive Committee — G. P. Engelhardt, R. C. Osborn, G. W. J. Angell, C. F. Groth, J. L. Zabriskie.

Publication Committee — Wm. M. Wheeler, C. Schaeffer, E. P. Felt, F. G. Love.

Auditing Committee — E. D. Harris, E. B. Southwick, E. L. Dickerson.

Field Committee — W. T. Davis, R. P. Dow.

On motion of Mr. Pollard, duly seconded, the secretary was instructed to cast a single ballot for the list of officers as read.

Mr. Engelhardt exhibited a collection of bees which he had taken in the vicinity of Olas de Moka, Dept. of Sosola, Guatemala, in September, 1908. Most of the material had been collected at an altitude of about 300 feet. He spoke of the abundance of bees swarming over the mass of tree blossoms or hanging vines many feet above the ground, and thus difficult to capture. He found a number of species of boring and carpenter bees in the woodwork of various outbuildings on the plantation. Several colonies of stingless bees were also taken.

Mr. Osborn, under the title of "A Review of Calvert's Odonata of the Biologia-Centrali-Americana" spoke concerning the excellency of this great work. His review is published in the body of the Journal.

Dr. Charles L. Pollard read a paper entitled "Notes on Hybrids between *Samia cynthia* and *Callosamia promethea*." He first gave a summary of previous observations as follows: (1) Cross between female *Cynthia* and male *Promethea*. Miss Caroline G. Soule obtained only two fertile eggs from this cross. The larvæ were typical *Cynthia* in practically every respect. Mr. Joutel, working with more abundant material, succeeded in raising a number of larvæ, which were typical *Cynthia*, and constructed *Cynthia*-like cocoons. (2) Cross between female *Promethea* and male *Cynthia*. Both observers raised broods from the cross, and both obtained larvæ partaking of the characters of the two parents. Miss Soule's brood, however, showed wide individual variation, while Mr. Joutel's varied only in respect to moults, the individuals at any given stage being practically alike. Although he had seen no published description by Mr. Joutel of the moths resulting from his crosses, Mr. Pollard had heard that interesting specimens were obtained by Mr. Joutel from female *Promethea* and male *Cynthia*. Both of these observers secured their hybrids by natural methods, but he had succeeded at no time in obtaining a natural cross. Crosses were therefore made artificially, each moth being held by the wings until union was effected. Of all these pairings, however, only one resulted in fertile eggs. This was a cross between female *Cynthia* and male *Promethea* on June 22, 1908. The female laid 326 eggs. Of these on July 2, 102 eggs hatched and no more thereafter. The young larvæ, as well as the mature larvæ examined later in detail, showed no constant point of difference from the typical *Cynthia* and this fact is in agreement with

previous observations. Many of the larvæ died during development, but 47 of the original brood survived to form cocoons. He was fortunate in having one male and two females emerge on August 18 and on August 20, three more females. The hybrid moths were *Cynthias* in every respect and if mixed with pure breed individuals could not be separated. The male mated naturally with one of the females, which oviposited normally, and these hybrids eggs of the second generation hatched on September 3. Of the 196 eggs laid practically all were fertile. Upon hatching it was noticed that these larvæ were smaller than the type, and showed more variation in color during their development. Cocoons were obtained of 39 larvæ between October 8 and 21. In conclusion Mr. Pollard remarked that if there was any tendency in the hybrid to follow Mendelian principles of inheritance, the moths of this generation emerging next spring should display some interesting results. Both typical and hybrid forms were exhibited.

Mr. Beutenmüller exhibited types of the following fossil Diptera from Florissant, Colorado, described by Professor T. D. A. Cockerell: *Tabanus parahippi*, *Tabanus hipparionis*, *Chilosia miocenica*, *Psilocephala hypogæa* and *Lithocosmos coquilletti*. Mr. Beutenmüller also exhibited some Orthoptera collected by Mr. Webber in Sumatra, and presented to the American Museum. Among these were sixteen new species and a number of very curious mimetic forms.

Society adjourned.

MEETING OF JANUARY 19, 1909.

Held at the American Museum of Natural History. President C. W. Leng in the chair and fourteen members present.

The librarian reported the receipt of the following exchanges:

Bulletin Societa Entomol. Italiana, XXXIX, Nos. 1-4.

Canadian Entomol., XLI, No. 1.

Insect World, XII, Nos. 11 and 12.

Revista do Museu Paulista, Vol. VII.

Zeitsch. f. Wiss. Insekten-biologie, IV, No. 12.

Tijdschrift Entomol., 1908, Nos. 3 and 4.

Berliner Entomol. Zeitschr., LIII, No. 2.

Bull. 216 N. J. Agric. Exp. Sta.

Proc. Cal. Acad. Sci., 4th Ser., III, pp. 41-48.

Mr. Dickerson made a few remarks on the house mosquito, *Culex pipiens*, and commented on the bulletin concerning the insect by Professor J. B. Smith recently issued by the N. J. Experiment Station. He said that while the salt meadows in this section of New Jersey had been drained, and as a result, the salt marsh mosquitoes, *Culex sollicitans* and *cantator*, practically suppressed, the unusual weather conditions last spring had permitted the house mosquito to become unusually abundant and troublesome. Where the authorities had oiled the sewer basins and taken other precautions, there had been little trouble, and it had been shown that although this insect had to be considered in our campaign, it could be readily controlled if this sort of work was carried on by the Board of Health.

Mr. Dickerson also exhibited a series of specimens of *Satyryx alope*, var. *maritima*, varying from the typical form to that closely resembling the form *nephele* which was collected at one time at Chester, N. J. Messrs. Sleight and Engelhardt stated

that they had taken these forms in the vicinity of Lake Hopatcong, N. J. Mr. Beutenmüller exhibited the species of *Satyrus* in the museum collection.

Mr. Engelhardt exhibited some miscellaneous Hymenoptera which he had collected in Guatemala, including species of *Pepsis* and *Polybia* and several species of ants. Of *Pepsis* he had taken a number of males but no females at light. A nest of *Polybia*, just started, was shown as well as one which had been building for two weeks. Mr. Engelhardt observed that these insects while building made a layer of cells a day, covered them towards night, and the following day destroyed the covering and added another layer of cells. The leaf-cutting ants, *Atta* sp., were observed in considerable numbers marching in paths which in places were covered. They were so destructive in gardens that it was impossible to raise flowers. Nests of these insects were found to be very large. Ants were also noted on a species of *Acacia* and the thorns which they inhabited were shown. All of the ants observed were unpleasant to handle because of their sting.

Dr. Dow spoke of the habit of *Eudryas unio*. In a swamp on Long Island many hundred larvæ of the insect had been observed upon the swamp Loosestrife. When full-grown, they had pupated near dead and decaying wood, some species of which, containing many pupæ, were exhibited. Very few pupæ were found parasitized but about 50 were attacked by a fungus.

Mr. Engelhardt said he had obtained many parasites, both Hymenopteran and Dipterous, and had noted that the pupæ were sometimes attacked by a bacterial disease.

Mr. Olsen reported the capture of two specimens of *Carabus nemoralis* at Winfield, Long Island, and a specimen of *Dendroides concolor* at North Beach, Long Island.

Mr. Angell said that *Carabus nemoralis*, which is a European insect, was first taken some twenty years ago by Mr. Clarence Riker, of Maplewood, N. J. Later it was found in some numbers under an old board walk at Cambridge, Mass., and last year he had reported specimens from the Bronx, New York City. The present captures seemed to indicate that the insect was becoming established, although these may have been introduced with some imported plants, as the locality is not far from Floral Park.

Dr. Pollard exhibited some exotic Saturniid moths, including a pair of *Tagara pallida*, which he had just acquired.

Mr. Beutenmüller exhibited some fine examples of exotic Mantidæ.

Mr. Davis showed specimens of *Orchelimum pulchellum*, which he had recently described. At Dennisville, N. J., he stated he had found a specimen in a swamp while searching at night with a lantern. The following night another was captured, and the characteristic song and color were noted. Both of these specimens were males. He had also captured a male and female at Jamesburg, N. J., somewhat later.

Meeting adjourned.

MEETING OF FEBRUARY 2, 1909.

Held at the American Museum of Natural History. President C. W. Leng in the chair, with fifteen members present.

Mr. Dow presented the resignation of Mr. F. M. Schott, which was accepted with regret by the Society.

Mr. W. D. Kearfoot presented a request for a grant from the research fund of the N. Y. Academy of Sciences to carry on the work of publishing a monograph of the Tineid Moths of the world and requested the endorsement of the Society. On motion the request was endorsed.

Dr. R. C. Osburn gave an illustrated lecture on the copulatory organs of dragonflies, with an account of the egg-laying habits. Many interesting slides were exhibited. Meeting adjourned.

MEETING OF FEBRUARY 16, 1909.

Held at the American Museum of Natural History. President C. W. Leng in the chair with seventeen members and five visitors present.

The librarian reported the receipt of the following exchanges received since January 19 :

Entomol. Tidkrift., Vol. XXIX, Nos. 1-4.

Univ. of Montana, Bulletins Nos. 50, 51 and 52.

Canad. Entom., XLI, No. 2.

Philos. Soc. Washington, Bull. XV, pp. 103-126.

Proc. Amer. Philos. Soc., XLVII, No. 190.

Dr. Zabriskie gave his fourth paper "On the Microscopical Examination of External Structures of Heteropterous Insects." It was illustrated by lantern slides from drawings made by himself to show certain structural peculiarities of *Chelinidea vittigera*, *Catorhintha guttula* and *Niesthrea side* of the family Coreidæ. The following illustrations were shown and commented upon : The antennæ of the species showing differences in shape and diameter of segments and the supplementary joint appearing as a cup-like structure between the third and fourth segments ; side view of the head showing the two spines, one on either side of the groove near the base of the second segment of the rostrum, the use of which is uncertain ; the peculiar arrangement of hooks and clasps which hold the fore and hind wings together when spread ; the sensory hairs on the pygidium of the flea, the under side of the squash bug and the cerci of the cricket.

Meeting adjourned.